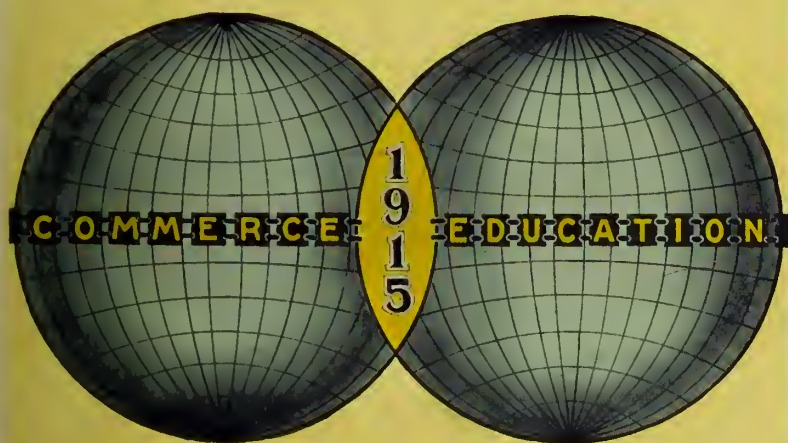


INFORMATION *for* EXHIBITORS

THE
PANAMA CANAL
DIVIDES CONTINENTS TO UNITE
THE WORLD

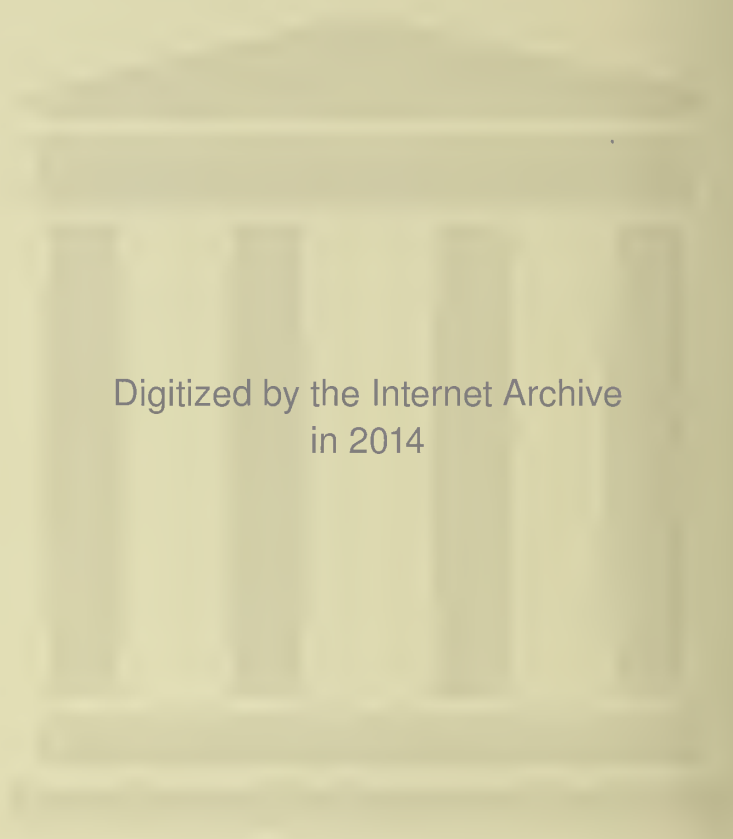


THE
UNIVERSE
CELEBRATES THIS ACHIEVEMENT
AT SAN FRANCISCO IN
1915

1915

1915

1915



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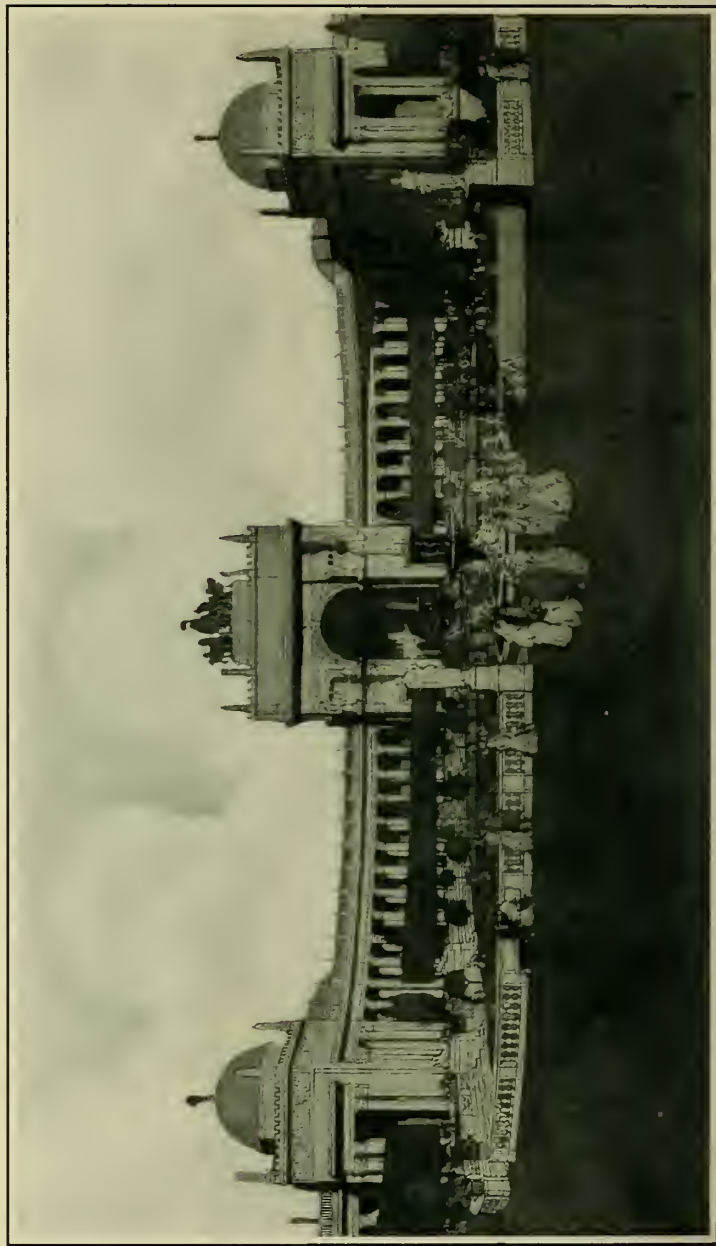
ILLUMINATED PERSPECTIVE



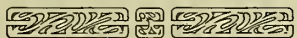
INFORMATION *for* EXHIBITORS

A BRIEF DESCRIPTION OF THE
EXPOSITION, EXTRACTS OF IMPORTANT
RULES AND REGULATIONS, AND AN
ANALYSIS OF THE PLAN AND
SCOPE OF THE EXHIBIT
DEPARTMENTS

PANAMA-PACIFIC
INTERNATIONAL EXPOSITION
1915



SECTION ON AXIS OF COURT OF SUN AND STARS



INFORMATION *for* EXHIBITORS

THERE are two outstanding reasons which should make the Panama-Pacific International Exposition of 1915 of exceptional interest and unusual inducement to the exhibitor: *one* is the far-reaching educational value, arising from the extraordinary activities which have been evidenced during the last decade in every branch of education, science, industry and art throughout the world; *the other*—the completion of the Panama Canal, with the accompanying development of old, and the inauguration of entirely new routes and zones of commerce which its opening will mark. This must give to the event a degree of world-wide importance far exceeding that connected with any similar achievement in history. The discovery of America; of the trade routes around the Horn and the Cape of Good Hope; and later, the construction of the Suez Canal: each mark an era of momentous importance in the development of the world's commerce. But all of them—even the last—occurred at a time when there was a wider scope for developing new territories, when modern com-



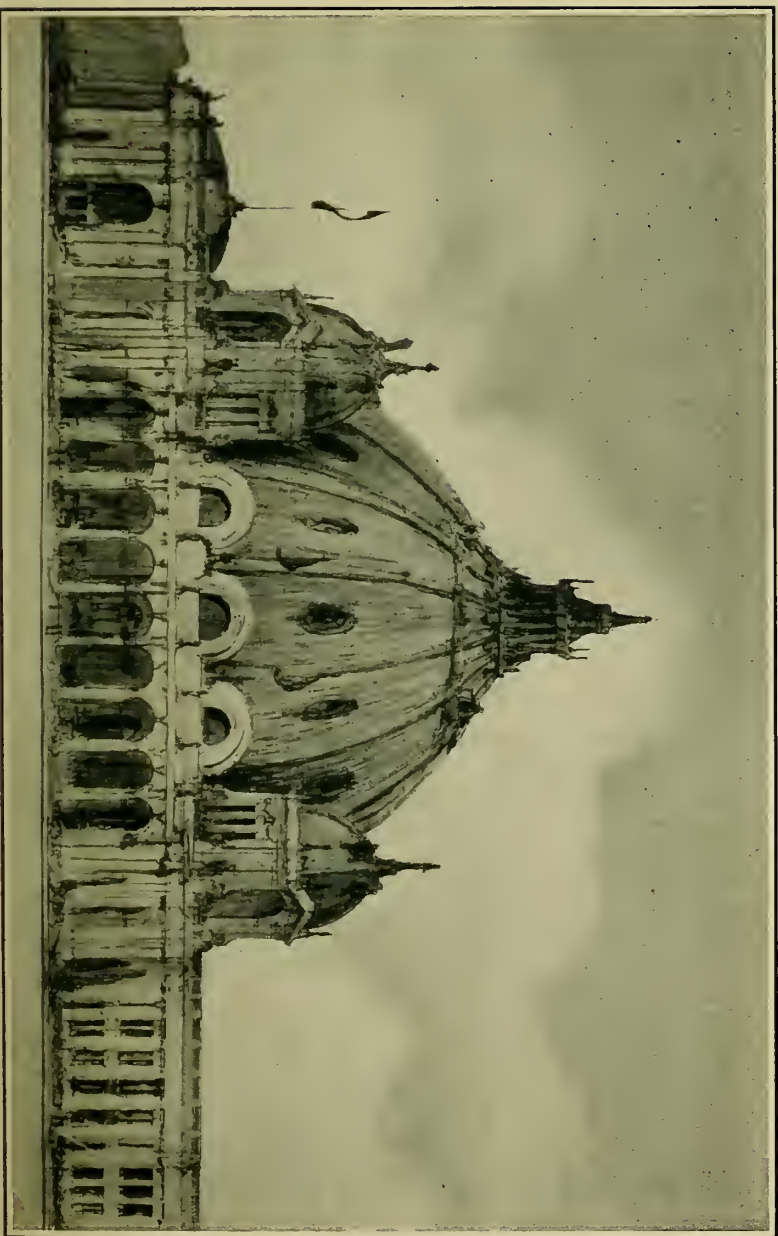
petition for new markets had not yet reached the present tension which must, of necessity, even be increased by the opening of the Panama Canal marking it as one of the most important events—if not the most important—in the commercial history of the world; and by the Exposition which will worthily celebrate that event so productive of universal benefit, for it will be held under conditions in relation to new activities of commerce such as have never before presented themselves and as, in all probability, will never occur again.

THE area on which the Exposition will stand contains 635 acres, with a frontage of two miles on San Francisco Bay and an average depth of half a mile.

The arrangement of the general building scheme will form, as it were, a triptych, the three elements of which, though distinct in detail, will blend together in the general harmonious characteristics that will govern the whole.

Viewed from the Bay, to the east will stand the sixty acres of Amusement Concessions; to the west will be grouped the buildings of the States of the Union and the Foreign Government pavilions; while the fourteen vast palaces, in which the various exhibits will be displayed, will form the center.

The general impression of this central group will be that of a vast enclosed palace. The walls will be pierced



FESTIVAL HALL

only by the superb entrances and archways forming the approaches to the interior Courts, the introduction of which marks an important departure in Exposition architecture.

These great Courts, three in number—the Court of the Four Seasons; the Court of the Sun and Stars; and the Festival Court—will, with their extensions, pierce the great central quadrangle from the richly planted Grand Esplanade on the north to the wonderful semi-tropical garden or alameda on the south. Their walls will be formed by the different Exhibit Palaces and their peristyles, while interconnecting smaller Courts have been planned providing for additional communication.

Such a building scheme makes possible an architectural arrangement which, while possessing the all-important attribute of compactness, will in no way be lacking in safety, architectural dignity and beauty, and suitable perspective of landscape. The introduction of the principle of laying out such Courts provides the easiest, most direct and most inviting method of intercommunication between the Exhibit Buildings which it is possible to devise.

The efforts of mankind in every branch of scientific research have become so extended and their results so numerous and important that it has been found necessary to inaugurate a new era in the assembling and classifying of exhibits.

In the first place, this Exposition will be entirely contemporaneous as far as awards are concerned, and no commercial article manufactured prior to 1905 will be reviewed for award. Secondly, though most comprehen-

sive in classification, it will be *selective* rather than general, the test being one of quality rather than quantity. From an educational point of view, this is of the utmost value to the seeker of knowledge, for it means condensation in the number of exhibits, diminution in the space occupied and conservation to the visitor of both mental and physical energy. The successful following-out of such a line of policy entails of necessity an exact area estimate. It will consequently be necessary that all applications for space be based on most conservative figures, designating the exact amount required for the artistic and educational presentation of the exhibit.

There will be no charge for space in the main Exhibit Palaces.

While details will be found in the published "Rules and Regulations," it may be of assistance to exhibitors at large to have some knowledge of certain fundamental questions of general application in reaching a decision as to the plans they will adopt.

1. *Delivery and Installation:* The delivery and installation of exhibits have been made a special study by the Exposition Management. Exhibits of every character from every part of the world may be landed directly at the special docks on the Exposition grounds. The same facilities will be offered in the case of railway shipments, which will enable cars to be lightered direct from the various tidewater terminals of the railroads to the Exposition. Furthermore, there will be railroad tracks about the grounds and into the buildings, and ample openings will be provided in the buildings to admit large exhibits. These arrangements will make the



facilities for reaching the Exposition and the delivery of freight far superior to any in the past, and will enable exhibitors to determine with reasonable accuracy when the exhibits should reach their destination.

2. *Customs Regulations:* The Exposition grounds will be treated as a bonded warehouse. The same United States Customs regulations as governed the St. Louis Exposition will be in effect at San Francisco. The probable advantageous exception is that exhibits sold for delivery after the close of the Exposition will be appraised at the time of delivery instead of at the time of receipt at the Exposition grounds.

3. *Power and Light:* Ample provision will be made for the supply and delivery of power and compressed air for exhibits of machinery in motion and for lighting. The charges for such supply will be based on the cost to the Exposition, as it is not desired that this should be a source of profit.

4. *Janitor Service:* There will be efficient janitor service installed for the cleaning of exhibit buildings, such force to be controlled by the Departmental Chief of each building. No charge will be made for the cleaning of the aisles and passageways, but the responsibility of keeping the exhibit space in order will rest with the exhibitor.

5. *Renewals:* As the period of the Exposition extends over more than one season, permission will be granted exhibitors to renew their exhibits. This applies more particularly to wearing apparel, but renewal or substitution of fruits and farm products will likewise be permitted.



GRAND CENTRAL TOWER
DOMINATING ARCHITECTURAL FEATURE OF
THE EXPOSITION



The exhibits of this Exposition will be installed according to a modern Classification—the work of the best authorities—and the Departments are eleven in number:

- DEPARTMENT A. *Fine Arts.*
B. *Education.*
C. *Social Economy.*
D. *Liberal Arts.*
E. *Manufactures and Varied Industries.*
F. *Machinery.*
G. *Transportation.*
H. *Agriculture.*
I. *Live Stock.*
K. *Horticulture.*
L. *Mines and Metallurgy.*

In conformity with the above Classification, and bearing nomenclature identical with these Departments, Exhibit Palaces will be erected ample in area and suitable in construction for the installation of such exhibit material as may be accepted by the Exposition.

Everything that architectural genius could suggest has been done to make the Exhibit Palaces marvels of beauty. Not only will each of the Palaces be a gem in itself, but all of these have been designed and placed in such a manner as to form a group in which each unit blends into and harmonizes with all the others.

Beauty, however, is not the only feature toward the attainment of which the designers of the Exhibit Palaces have striven. Desirable though this may be in itself,



ONE OF THE FOUR TOWERS AT
ENTRANCE OF EAST SOUTH AND WEST SOUTH
MINOR COURTS

it is not the only essential in the physical construction of a great Exposition. During the period of the Exposition, exhibits of untold value will be ranged within its walls. To protect these from possible loss or damage by fire was a problem which has had the careful attention not only of the Exposition authorities themselves but of the world's greatest experts in this branch of science. It can be asserted without fear of contradiction that no Exposition has ever been so well protected against the ravages of fire. Everything that engineering skill could suggest, both in the construction of the buildings themselves and in their equipment with the most perfect fire-fighting apparatus, has been embodied in the Exhibit Palaces of the Panama-Pacific International Exposition. This Exposition is notable as the only one which has ever been equipped with the special Sprinkler fire system.

The following brief description of the plan and scope of each Department will be of interest to intending exhibitors, and will show why the pre-exposition interest in 1915 is remarkable. This outline will provide the reader with an insight into the various Exhibit Departments.

Fine Arts

CLASSIC in the simplicity of its architecture, unequaled in the charm of its surroundings, the Palace of Fine Arts strikes one of the most beautiful and dignified notes in the Exposition, a casket worthy to hold the treasures of contemporaneous painting and sculpture to be selected from the principal nations



PALACE OF FINE ARTS

INFORMATION



for EXHIBITORS

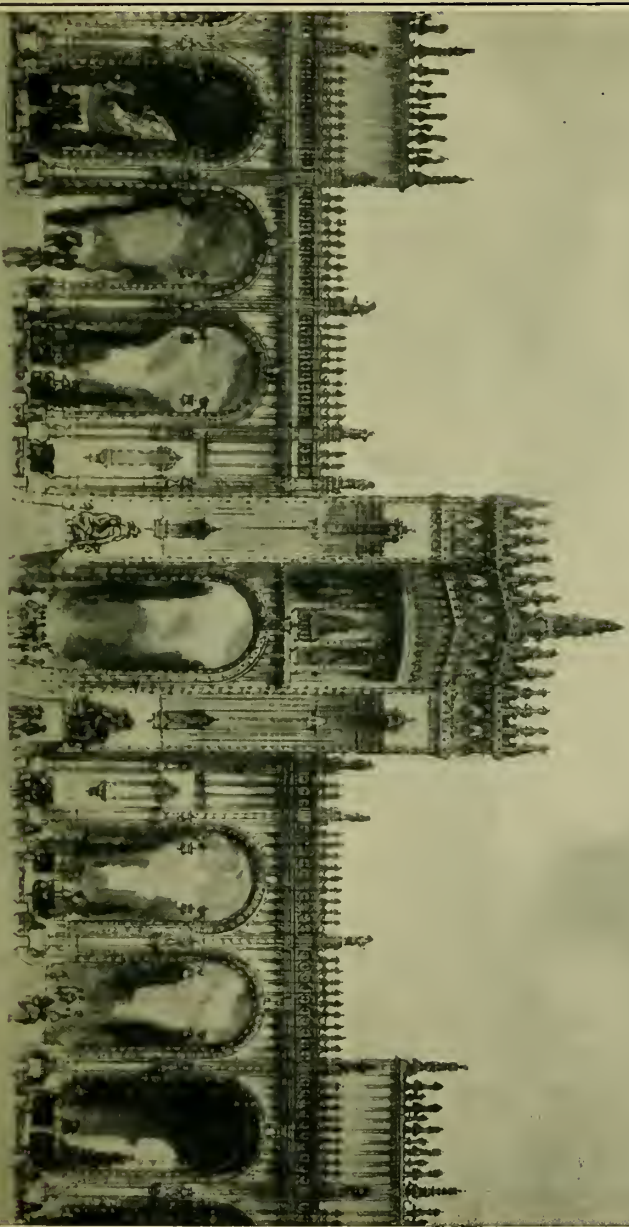
of the world. The Department of Fine Arts will afford an opportunity for the study and comparison of the best productions of the brush and pencil that have been created since 1905. This is true also of sculpture, for the Exposition will bring together the most representative works from foreign and American artists.

The collection will be the most important, the most collective and the most representative exhibition of every modern school, and will tell, by the most complete method, of the esthetic as well as the material value of art as an incentive to national as well as to individual education, culture and refinement; while it will give an unique means of gathering a comprehensive and accurate impression of the artistic activities of the world and their tendencies.

There will be a notable Loan Collection of Masters and works earlier than 1904. The responses from European art centers and the interest manifested by American artists at home and abroad leave no question as to the unusual quality and number of schools to be shown.

The display of Fine Arts at the universal exposition in San Francisco will afford rare enjoyment to the many privileged to see it, and will also prove of immense interest to thousands of art lovers who may not be fortunate enough to visit the Exposition. The visitor may personally see the vast collection of beautiful objects displayed, while the absentees will be able only to read of them. Both, however, will derive profit in added knowledge and understanding of Art and its powerful effect upon the culture and refinement of the human race.

The Exposition of 1915 will therefore prove of incal-



FACADE OF EAST OR ORIENTAL COURT

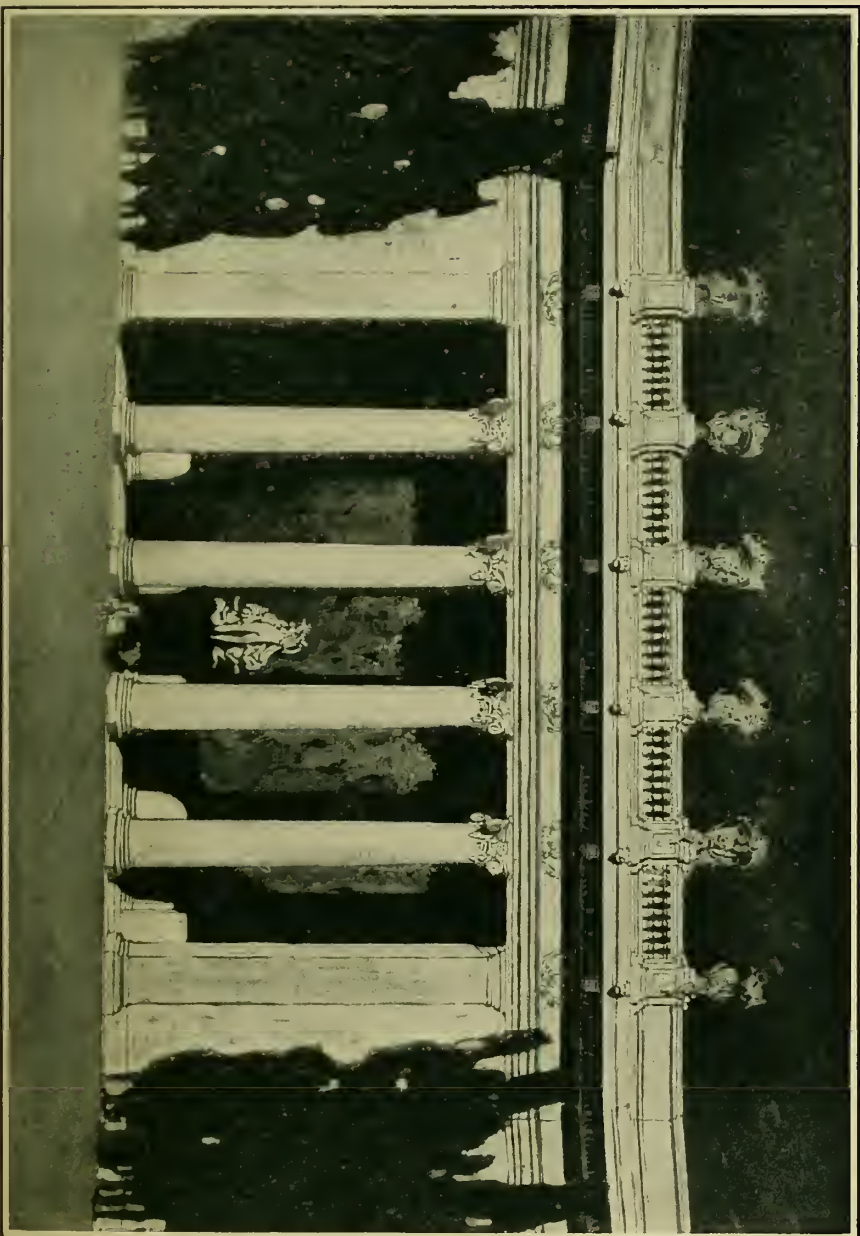


culable benefit in its educational value to the masses. It will undoubtedly prove the source from which will spring a fuller Art development, not only in America, but the world over. By reason of this Exposition's universal character, its artistic influence is bound to remain an enduring reality of the broadest possible scope long after the physical features shall have become only a pleasant memory.

Education

THE Palace of Education is situated on the west side of the group of buildings. Since man enters social life through Education, the object of the educational exhibit is to secure a comparative display from all the countries noted for educational effort, and to present a thoroughly comprehensive and systematic demonstration of educational work in the United States, comprising Universities, Art Schools, Agricultural and Mechanical Institutes, and Commercial and Business Colleges.

By affording the information which the educational expert needs, this exhibit will appeal most strongly to the general public. The value of an educational exhibit lies in the opportunity for comparison. Methods of administration and teaching, equipment of schools and colleges, courses of study,—demonstrating theories underlying their construction and the results attending their enforcement—are assembled side by side for investigation by the student. These comparisons of the best thought and experience evolved from the trials and experiments of generations are incalculable in their



A DETAIL OF THE COURT OF THE FOUR SEASONS



benefits to the cause of education and advancement of the world in general.

Demonstration in an educational exhibit is necessarily limited, and must be confined largely to charts, photographs, printed matter, maps, models, apparatus and specimens, including the masterly grouping of facts and their graphic presentation to the public eye.

Just as from an educational standpoint an Exposition may be likened to the general practitioner dispensing knowledge on all the various departments into which it is divided, so is the Educational Department the source from which all such general knowledge emanates. It is a consulting authority whose special work it is to bring together the educational systems and methods of all nations for examination, analysis and comparison, in order to show the advance the world has made on these lines during a certain period. As such it illustrates to a marked degree the necessity for careful selection, however collective in nature; and in order to avoid the duplication of exhibits which have been made in previous expositions it is intended to confine them to a collection showing the development in educational methods since 1905.

The twentieth century will be particularly notable for the contest between nations for commercial and industrial supremacy,—an era that will follow closely upon the opening of the great Panama Canal. The nation whose system of education gives to its citizens breadth of observation, power of adaptation to emergencies, and the ability to do things, will stand pre-eminent in the educational and commercial world. The earnest striving of each nation to attain this enviable position will en-

lighten and elevate its people in such a marked degree as to make this movement the world's greatest agency for universal peace.

Social Economy

THE world-wide interest in sociological problems, many of which owe their origin to modern economic and industrial developments and to the marvelously rapid growth of urban centers, together with the progress made toward their solution by the application of scientific method, fully justifies the prominence which will be accorded to social economy at the Panama-Pacific International Exposition.

The aim will be to illustrate the world's progress in the entire field of social endeavor, to show man in all his complex relations and activities, particularly from the aspect of cooperative association. This would include consideration of all the manifold forms of governmental and social control, mutual association for the betterment of living conditions, and in general all movements for the development of a fuller social life. The comprehensive scope is further indicated by the classification, although it is obviously impossible, in any Classification, to give individual recognition to each particular topic, however important it may be.

This brief outline will leave no doubt as to the enormous benefits derivable from an exhibit dealing with the most vital problems of our existence. The great engineering achievement—the Panama Canal—in honor of which this Exposition is held, would indeed have

been impossible but for the advances made in hygiene, one of the many subjects to be treated.

Every effort will be made to secure exhibit material especially selected on the basis of unusual merit and to encourage the cooperation of exhibitors. This plan will also eliminate needless duplication and make possible the presentation of each subject in the most logical and intelligible manner, thus adding immensely to the educational value of the exhibit as a whole.

Of especial interest to the public at large will be illustrations of "Welfare Work" in the great industrial centers of the world. It will be shown how the employers have joined in providing better facilities under which wage-earners can work and live. These embrace improved ventilation and sanitary arrangements in factories and mines, etc., economical and wholesome food supplies, and properly equipped dwelling houses. These wise provisions are not only humanitarian and praiseworthy, but are proving good business policy because they result in healthy and contented employees who render far more efficient service and are at the same time imbued with a spirit of friendly interest in the prosperity of their employers.

Liberal Arts

IN THE domain of Liberal Arts the exhibits will be notably interesting and significant, indicating that the agencies of progress have been continuously at work. They will embrace the most important combinations of Art and Industry, of Scientific activity and



COURT OF THE FOUR SEASONS

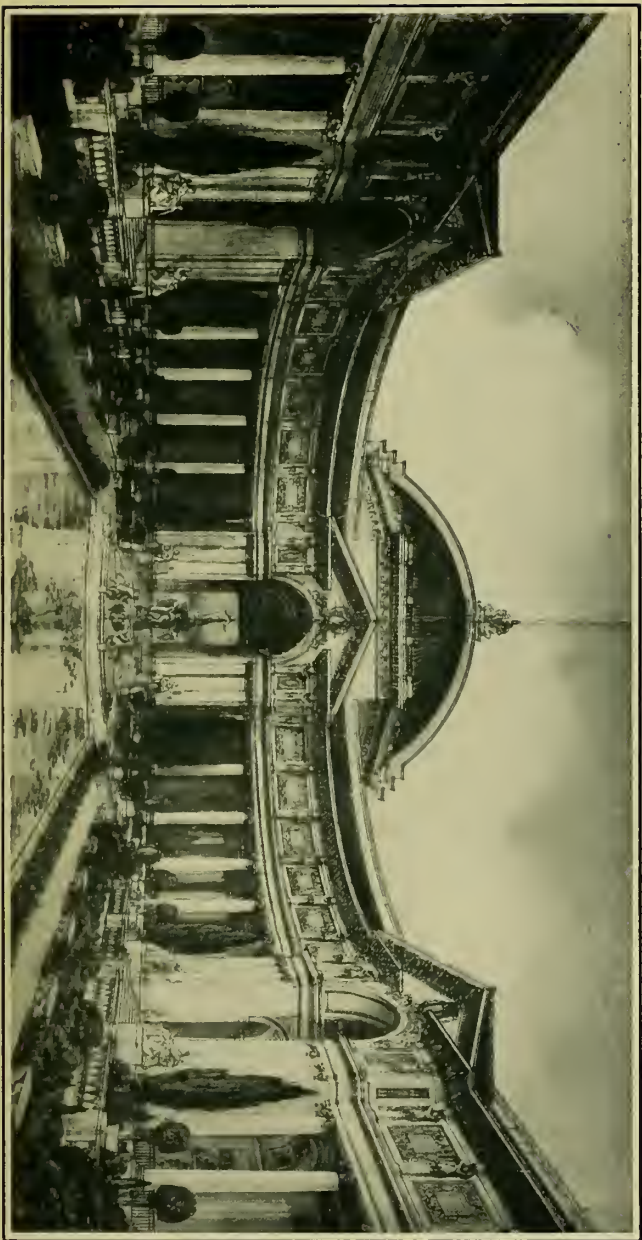


achievement. All the processes will be demonstrated, step by step, from the initial work to the finished product. The scope, significance and character of the Department of Liberal Arts will be indicated by a careful study of the Classification, which covers fifteen separate and distinct Groups divided into one hundred and twenty-one Classes.

The display of Graphic Arts will embrace the whole range of this broad field—the various processes in engraving, printing and publishing, including maps and other commercial engravings, and the manufacture of paper. Journalism, the prime factor in moulding public opinion, will be fully illustrated. Photography's latest achievements will be on exhibition, such as the recent developments in color photography, the scientific application of photography to astronomy and surveying, and the making and operation of moving pictures.

There will be shown large telescopes and other delicately adjusted instruments used by astronomers in the great observatories of the world, and by scientists in other fields of activity; calculating machines and cash registers; optical instruments; and coins and medals. The mechanical side of Medicine and Surgery will be represented by an extensive collection of instruments and appliances, and by a demonstration of the most intelligent modern methods for the prevention and mitigation of the ills which beset mankind. The many chemical products and their processes will prove highly attractive, especially the perfumes, flavoring extracts and brilliant dyes.

All kinds of musical instruments will be presented; from band and orchestra equipments to grand pianos



ONE OF THE MINOR COURTS

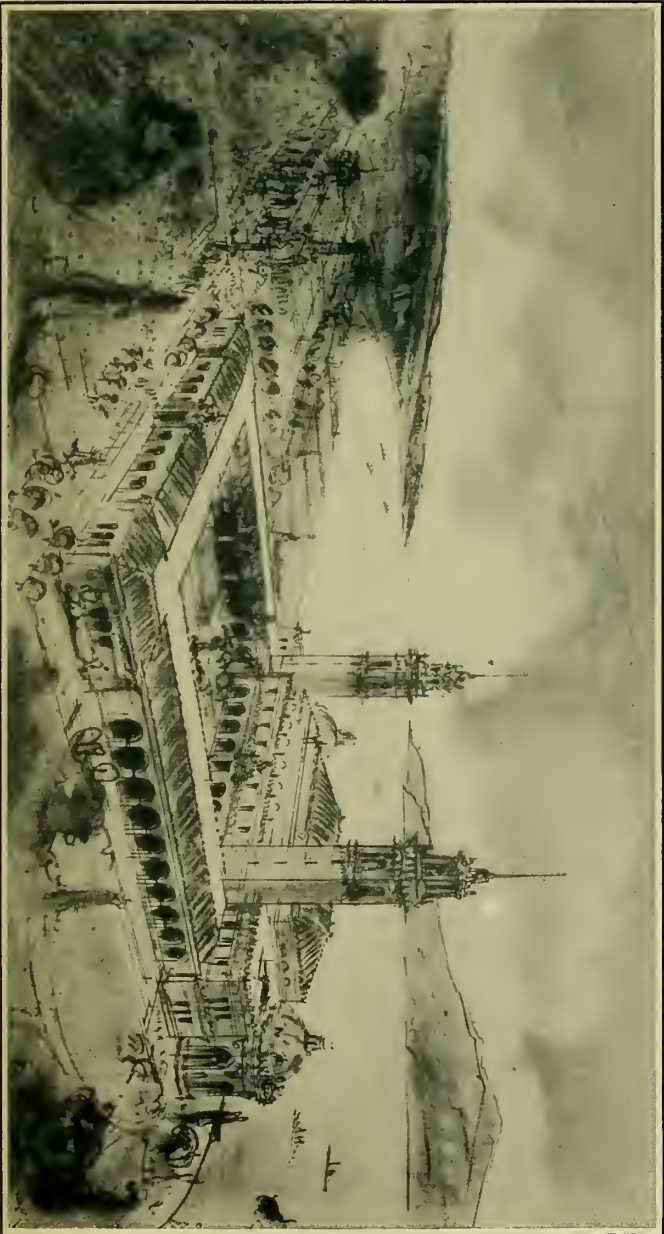


and pipe-organs. Special features will be the most modern devices in player-pianos, which now form a very popular and important part of this industry. Wireless Telegraphy is now an established fact and there is every reason to believe that Wireless Telephony will have become perfected by the time this Exposition opens. The Dictograph method will be among the most interesting exhibits in Telephony; also Fire Alarm and Police Signal systems.

Special attention will be given to the exhibit of Civil Engineering, road-making, irrigation projects and public works. The great Panama Canal is the crowning achievement in Engineering, and large working models of this best example of the Engineer's skill will be on exhibition. Illustrations of the activities of the Architect and Architectural Engineer will be exhibited on a large scale in the form of drawings, models and photographs of structural, decorative and landscape architecture, and by many ingenious contrivances in operation for the public's safety, comfort and convenience. Among the most remarkable examples of this art and skill are the buildings and grounds of the 1915 Exposition and the reconstructed city of San Francisco.

Manufactures and Varied Industries

THE Department of a Universal Exposition which the nations of the Earth are most certain to appreciate is the exhibition of finished products of manufacture and manual skill. These comprise the objects of utility, luxury and taste in which each country



CALIFORNIA COUNTIES BUILDING

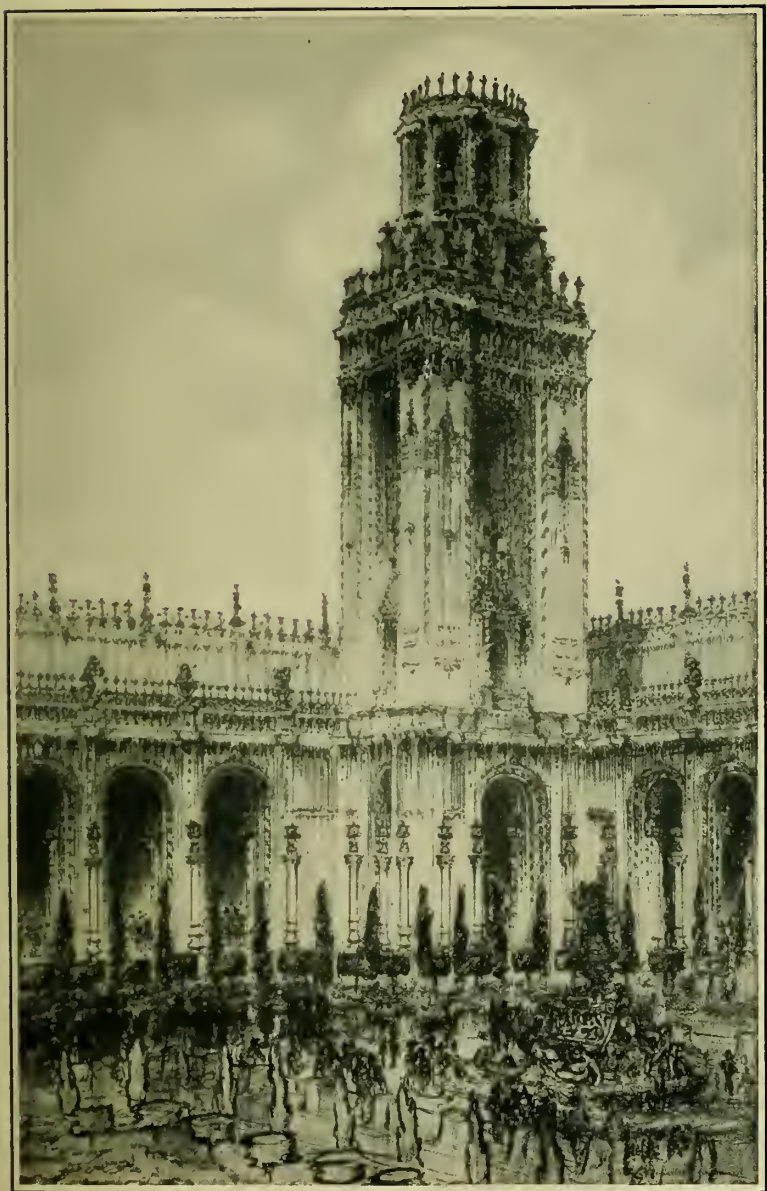


excels and which constitute the most valuable and profitable part of foreign commerce. Artistic work is the kind a nation shows with the greatest pride and satisfaction; and the art industries of Europe, the Orient and the United States will be brilliantly displayed in the Palace of Manufactures and Varied Industries at the 1915 Exposition.

The display will disclose to the farmers, workmen, manufacturers and traders new ideas of form and finish of style and ornament, which will have an important educational and stimulative effect on international taste and workmanship. The plan and scheme of the Exhibit Palaces and their decoration are unique in Exposition construction; and the attractive decoration of the interior of the palaces greatly enhances the beauty of the whole.

The exhibits in this Department will, broadly speaking, cover all the goods ordinarily found in the principal retail stores of a large city. The space given to foreign governments will be divided into groups according to nationalities, and the domestic space will be divided according to industries.

Two of the most imposing Exhibit Palaces have been assigned to house this large variety of merchandise and the process of production. In the Palace of Manufactures will be installed goods wholly utilitarian in character, such as hardware, heating, lighting and ventilating apparatus, textiles, wearing apparel, etc. The Palace of Varied Industries will contain manufactures that are essentially artistic in nature, like precious stones and jewelry, clocks, silverware, pottery, furniture, tapestries, upholsteries, carpets, stained glass, etc.



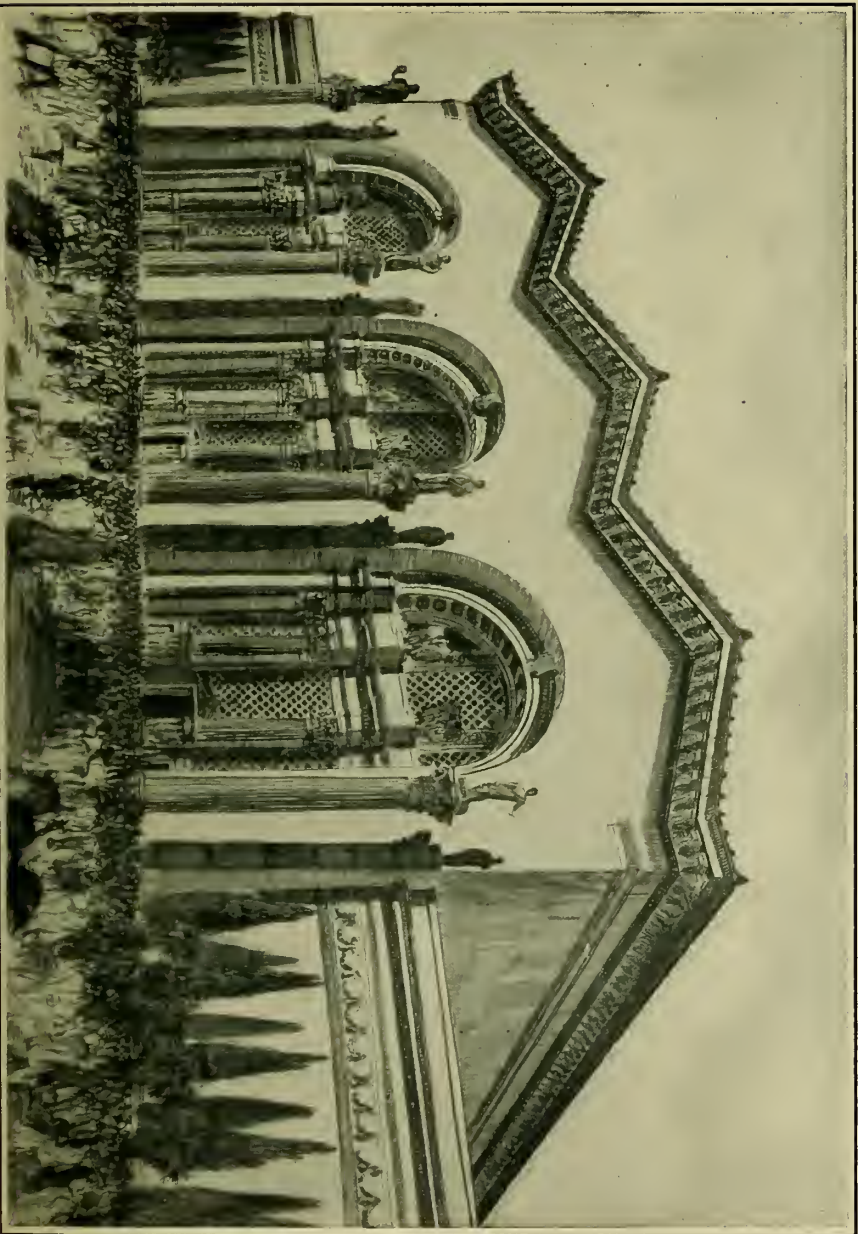
ECHO TOWER IN EAST COURT

Machinery

MECCHANICAL and electrical power have now reached such a wide scope of adaptation to human needs and comforts that the layman as well as the engineer is interested in the means, mechanical and electrical, of turning nature's sources of energy into suitable and convenient channels for industrial and domestic uses. Likewise, in this age of metals, the supplying of many metal products to the daily uses of mankind has awakened an active popular interest in machines and methods for shaping metals.

The realm of machinery has, for a long interval of development, been more or less a mystery to many, or did not arouse widespread interest; but this condition has, in the present decade, noticeably changed. Mechanical thought, ingenuity and workmanship are now in their progress so closely following the advances of the physical sciences, that the discoveries of science are soon turned to various practical uses, through mechanical and electrical appliances, for the benefit of mankind.

The uses of machinery are so broad that they pervade every Department of any Exposition which shows up-to-date progress. The Department of Machinery Exhibits of the Panama-Pacific International Exposition aims to show in an educational and selective way the present stage of development in engines, turbines and other motors which convert natural stores of power into motion and work; also to place before the public in an interesting way all types of machines which shape wood



MACHINERY PALACE

and metals into the finished products so closely associated with daily life.

The educational value of this Department will be secured by embodying the following ideas: (1) A systematic arrangement showing engines, turbines and other prime movers in actual operation; (2) the means of transferring this energy of motion and converting it to various needs; (3) the exhibition of various wood and metal shaping machines to show their uses; (4) the products of these machines in various stages of advancement toward completion; (5) the exhibition of machines and fittings in parts, or in open sections, to give a view of their inside construction.

From the standpoint of the manufacturer of machinery, there can be no broader commercial advantage than to increase public interest in and knowledge of machinery. This cannot be better done than by showing its constituent parts, its motion and the methods and products of its operation. Electricity and machine construction are so closely allied in the generation and use of electric energy that the Panama-Pacific International Exposition has deviated from previous Exposition practice by placing electric apparatus in the Department of Machinery.

Transportation Exhibits

THE partial triumph that man has achieved over the limitations of time and space offers one of the best measures for his progress; a nation's civilization may be judged very accurately by its facilities of



TOWER AND CASCADE OF EAST OR
ORIENTAL COURT



intercommunication and the extent to which its commerce spreads beyond its own borders. The unceasing "purpose of progress" has nowhere better exemplification than in the great State of California in which this Exposition is to be held.

It is most fitting, therefore, that in San Francisco, Transportation — which has made this great celebration possible — should be treated as a subject and be given a building of its own. The exhibits of Railways, Vessels, Vehicles and Aerial Navigation will be housed in the Palace of Transportation, which is of rectangular shape and occupies sufficient space to make a complete display of these great industries.

Railway exhibits will consist of locomotives, cars and all railway supplies, and will occupy one section of the building. The locomotive exhibit will be along the lines of the greatest and latest developments in locomotive construction; and the car exhibit will show the most modern methods for the accommodation of the public, both in railway and street cars. These will include all the new inventions and appliances used for the protection of life and property in this connection.

The automobile and allied industries have increased enormously since the St. Louis Exposition, and the exhibit of this method of transportation will be the most extensive and carefully proportioned of any exhibit ever shown. The commercial vehicle has invaded the domain of the delivery wagon and heavy truck, and this type of transportation will have its recognition. Adequate arrangements will be made for those

INFORMATION



for EXHIBITORS

exhibitors who wish to assemble cars or manufacture parts, and arrangements will also be made for demonstrating machines. These will be provided for in a separate Motor Transportation Palace, which is of about the same dimensions as the main exhibit palaces.

The great advance in the method of power generation and application has extended into the agency of transportation, and the motor-boat industry is now only second to that of the automobile. The fact that this Exposition celebrates the opening of the Panama Canal—an engineering achievement that mainly affects maritime commerce—makes the featuring of a marine exhibit of the greatest interest. There will be a complete exhibit of models of the ships of the early English, Dutch, French and Spanish navigators as well as documents bearing on the voyages of these courageous explorers who braved the dangers of the oceans in what would now be considered imperfectly built and equipped vessels.

The rapid development in the art and science of the invasion of the air offers a broad field for exhibition purposes and the general instruction of the public. The spectacular feats of aviation have been made possible by the growth of what may now be considered a substantial and extensive industrial development. The Exposition, therefore, will encourage exhibits and accomplishments which will enable the public to become acquainted with the mode of manufacture and operation of the various aeronautic devices that are being produced in this country and abroad.

Agriculture

IT IS natural that the agriculturists should worthily signalize their interest in this great Exposition and send the offerings of their skill to celebrate the chief National Industry; while other nations, even those in which other crafts have gained ascendancy, will present in its best light this most honorable branch of labor. Satisfactory exhibits of farm products will be collected, not only from the United States, but from remote corners of the earth; and their exhibition will justify the prominence conceded to this dominant factor in the wealth of the world. Many countries in their desire to attract settlers to their lands will have a strong incentive to make splendid exhibits. It is certain, therefore, that the exhibits in the Palace of Agriculture will be of an extent and character never before seen.

The gigantic strides made in the science of agriculture and its useful application throughout the world give the Exposition a wealth of material from which to choose. At least one-fourth of the area of this large Palace will be devoted to the exhibit of farm and agricultural implements and farm machinery, which will include appliances for irrigation and draining land. The improved methods in agriculture will be carefully illustrated. The tobacco exhibit will show the methods of growing, the manufactured product, and the characteristics of the leaf raised in the different parts of the world. A complete synopsis of the production of cotton from the seed to its delivery at the mill door will be featured. Vegetable and animal food products, methods



COURT OF SUN AND STARS TOWARD MARIN HILLS



employed in their production, farinaceous products, bread and pastry, will form a most interesting and instructive group. The processes of handling milk for making butter and cheese, dry milk, etc., will be shown in the Dairy Exhibit, as well as the methods of pasteurizing and sterilizing. The wine exhibit of the world will be shown in that building, and a very extensive display is planned by the Domestic Organized Wine Industries.

Under the simple caption of "Food Products" the section indicated naturally covers the vital forces of humanity and the conservation of the sources of the world's food supply. These bases of the support of mankind will receive at the hands of the Department of Agriculture the broad and comprehensive treatment they merit. Under this category of the Classification the Meat and Fish foods will be given an importance never before accorded them; in fact, the provision of a separate Palace for Food Products is for the first time a part of the physical plan of a great Exposition. The tremendous industries based upon the Fisheries will be of unusual significance in the Exposition of 1915. They will naturally be so by reason of the maritime character of the Exposition, and the fact that it is notably associated with the development of the Pacific Area. Special effort will therefore be made to adequately present the vast operations associated with the Fisheries, and it is hoped that in this demonstration not only the extent of the production and the amount of capital involved will be fully illustrated, but that the evolution of this vast industry and the growth which has resulted in its

present proportions will be presented in a graphic and highly instructive manner.

The Classification of the Department therefore covers practically all the products coming from the soil; the tools and implements, the methods of cultivation, of harvesting, of irrigation, of drainage; the by-products and the manufactured forms of such products, their preparation and preservation; including everything edible and drinkable which comes, however remotely, from the soil and which enters into the home life or commerce of the peoples of the world.

Live Stock

THE great renewal of interest in live stock production all over the world is traceable to two causes—the decrease in the supply, and the realization that the continuity of agriculture depends upon the restoration to the soil of the fertility that is incident to live stock production. The leading source of income to the farmers of the United States and to a majority of those engaged in agricultural pursuits everywhere, is the selling of animals and poultry off the farm. It is therefore meet and proper that live stock should receive a large share of recognition at San Francisco in 1915. Human life itself is so closely interwoven with the production of animals for purposes of utility and with the output of the dairy and the poultry yard, and there has been such marked progress along these lines, that no more significant lesson can be spread for the study of mankind.



The Live Stock Department was one of the first created and actively launched. Because of the time necessary for the breeding and production of types suitable for universal competition, much active work has already been done in every country where stock farming is a part of agriculture, the purpose being to bring out a representative display of horses, cattle, sheep, goats, poultry, pigeons, pet stock, dogs and cats. Countries that have heretofore not been represented at world's expositions in a showing of live stock will exhibit at San Francisco. This applies especially to the Orient.

Cattle—Dairy and Beef: A demonstration of advanced knowledge in dairying will be one of the leading features of the Live Stock Department. Dairy tests, the type of cow that pays a profit, methods of feeding and the manufacture of dairy products will be the leading heads under which the dairy lesson will be taught. There will of course be the regular competition for breed prizes.

In the beef cattle division there will be shown the use of silage in beef production and the change that has taken place within comparatively few years in types and market ages. The breed competition will be a great feature and the interest of a number of foreign countries has already been enlisted.

Horses: The great transition through which the production of horses has gone will be exemplified in the display at San Francisco. The production of utility horses was never a more attractive pursuit than at this time, and there is a great unsupplied demand for saddle horses of quality. The true American type, the



Standard-bred, is coming in for renewed interest. One of the World's big problems, the production of horses suitable for army remounts, will receive a large amount of attention. There will be an international conference, display and contest incident to cavalry horses, the result of which will make history in the horse world.

Sheep: The growing call for mutton; the gradual closing in of the ranges; the ever existing demand for wool and the change in methods that is taking place in the sheep industry will reach fruition at San Francisco in a sheep display that will mark an epoch in that industry. The breed prizes will be commensurate.

Swine: Practically every farmer in the world has a knowledge of swine raising, in which there is a growing interest. There are new types and new methods of production which, together with liberal prize awards, will make the swine display at San Francisco notable.

Goats: The growth of the mohair industry; the increasing number of milch goats; the use of goats for clearing off timber undergrowth and the added demand for goat meat will render this section one of importance. No Exposition heretofore has given a like amount of recognition to the goat industry.

Poultry: Including chickens, turkeys, ducks and geese, poultry is a billion-dollar industry in the United States; and in other countries of the world it occupies a like position. No part of agriculture comes in such close touch with the urban and suburban dweller. Breed futurities, laying contests, standards of perfection, market types of poultry, the production and handling of eggs, and the growth of the societies and associations incident

to the poultry industry will be fully exemplified in this branch of the Live Stock Department. It is confidently expected that the poultry show at San Francisco in 1915 will from every standpoint surpass anything before given.

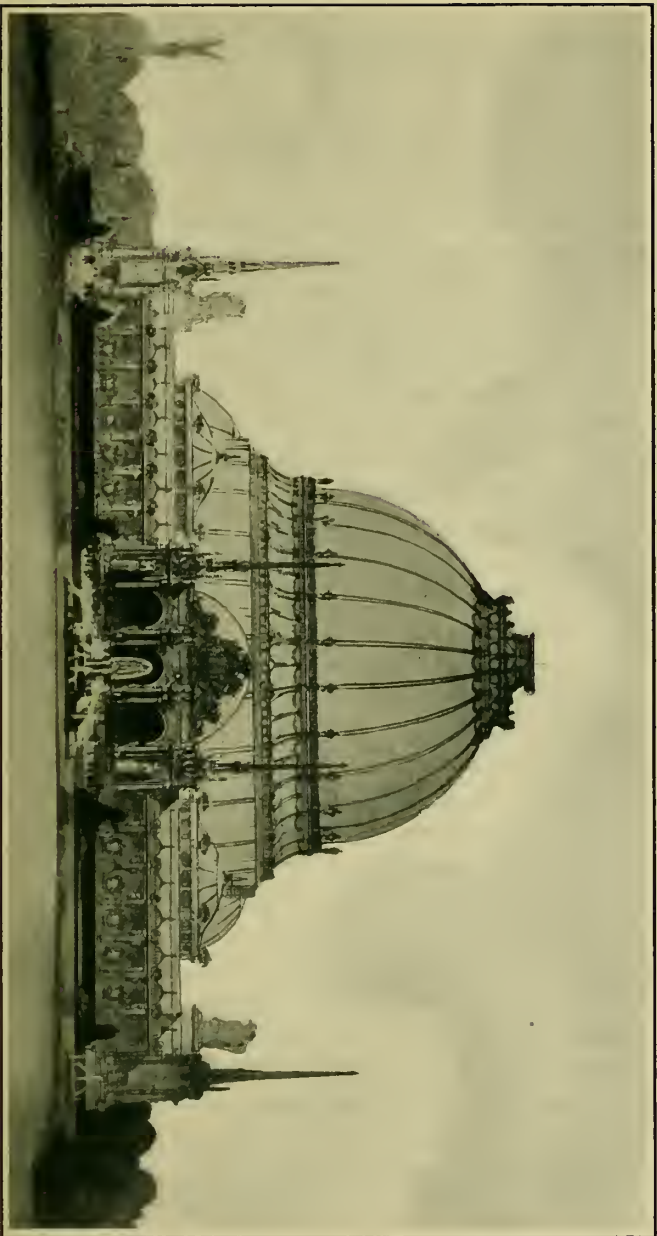
Pigeons, Pet Stock, Dogs and Cats: Both sentiment and usefulness will be considered in the arrangement, in the setting and in the importance of these divisions. Adequate prize money, advanced conveniences in showing, fair and broad competitive rules, and the natural appeal to the better side of adult and child will serve to make these branches attractive parts of the animate division of the Exposition.

Classification: In nearly every instance the classification will be arranged by the leading associations connected with the herd book and fancy — comprehensive and complete.

Cooperation: The enthusiastic help the Live Stock Department is receiving from herd book associations, societies, clubs and fancies all over the civilized world is a subject for congratulation: an interest that will inure to the advancement of the material progress and civilization.

Horticulture

THE climate of San Francisco, having no winter frosts, makes it possible to have an outdoor, as well as an indoor, horticultural display of great beauty. Preparations are being made in advance by the Exposition authorities to take the best advantage of this opportunity. The world is being searched for rare and



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beautiful plants. Orchardists and fruit-growers will be particularly interested in the comparison of exhibits. The apple exhibit, for instance, will contain specimens from each apple-producing state, showing the effect of soil, climate, altitude, etc. The wonderful advance in the practical art and science developed by plant eugenics will be fully illustrated. The great Central Court and the Exposition grounds will be as enchanted gardens, and foreign governments and the States will beautify their grounds as at no other exposition.

This Department proposes to maintain a collective fruit exhibit for the purpose of displaying in one space the different varieties of fruits grown in widely separated localities. This will afford unrivaled opportunities for study of fruits from all sections by comparing their respective sizes, color, shape, texture, flesh and flavor. It is expected that the various States will cooperate toward making this special feature a success, especially with regard to the highly interesting fruit-grafting methods and processes of recent origin.

Particular attention will be paid to the culture of ornamental flowers, bulbs and shrubs, and there will be shown the rarest and most beautiful specimens of aquatic plants in existence.

Horticulture and Floriculture are making such rapid strides that there is a demand for the latest devices in implements and apparatus used in these very prosperous industries. These will be displayed on an extensive scale and include all the machinery and preventives utilized to guard against injury or damage by the elements, fungous diseases and insects.

Mines and Metallurgy

WITHIN the Palace of Mines and Metallurgy will be displayed the mineral products of the world, together with illustrations of mining and metallurgical processes. The leading metallic ores, such as iron, lead, zinc, gold, etc., will be illustrated by examples from the several States and Foreign collective exhibits. These will be supplemented by the metallurgical exhibits and coal displays made by private individuals and corporations. Especial attention will be given the new and rarer minerals and the processes for their reduction. These include the several ores which have lately come into prominence on account of their radio-active properties. Gems, rare stones and crystals will make an important exhibit.

Mining engineering, as practically applied to the development of properties, will be shown. The petroleum exhibit will contain a collection of all the crude oils produced in the world, besides a full series of derivatives and by-products, and also models of all the appliances used in drilling, piping, storing and distributing ore. Clay and its products will have a very prominent position, and the raw material will be shown with the finished product. The great increase in the uses of cement since the last International Exposition will make a large and interesting field for exhibit purposes. The most improved methods and appliances used in mining Coal, Iron and Stone will be shown, including the handling, transportation and delivery at destined points. The Department as a whole will contain much that is



new and interesting in the special field allotted to it, as distinguished by its comprehensive title.

Wherever possible the processes of mining will be shown in actual operation, illustrating or demonstrating all the stages, from preliminary prospecting and surveys down to the manufacture of mine products into articles of public and general utility.

The Division of Exhibits of the Panama-Pacific International Exposition at San Francisco in 1915 will comprise a complete exhibition of all that indicates the progress of mankind,—the results of education and culture, inventive genius, scientific and industrial attainment, and artistic expression. This Division will make a feature of displaying in the most comprehensive manner possible the activities and achievements of man, particularly during the decade ending with the year 1915.

The ground plans for the various Exhibit Palaces have been arranged, but the comparative limitation of exhibit space, which by reason of wider participation and more extended productivity will be more restricted than at previous International Expositions, makes it necessary for all exhibits to be *selective* in character. This fact emphasizes the advisability of applying for exhibit space as soon as possible.

Copies of the Rules and Regulations, Classification of Exhibits, blank applications for space and other information prepared for the guidance of exhibitors, will be forwarded on request.

